

Applicant: Ilkka Naatti et al.
Application No.: 10/561,401
Response to Office action mailed Mar. 20, 2008
Response filed June 11, 2008

In the specification:

Please amend paragraph 0019 as follows:

[0019] FIG. 2 illustrates a situation in the primary stage of reeling up in a situation where the reel spool 5 and the reel R formed around it during primary reeling is transferred from the primary reeling device 8 to the transfer device 7, which operates as a secondary reeling device. ~~For this, the~~ The transfer device 7 is run in the direction pointed out by the arrow against the travel direction of the web to a point close to the primary reeling device 8. In this stage the web W travels to the reel R via the portion of the supporting member 1 coming after the first guide roll 2.

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Please amend paragraph 0021 as follows:

[0021] FIG. 4 illustrates a situation, where the new reel spool [[2]] 5, by vertically lowering the primary reeling device 8, has been brought to the change station in contact with that portion of the loop of the supporting member 1 that travels on the first guide roll 2 in order to create a so-called hard nip. Before this the new reel spool 5 has been accelerated to the web speed with the drive of the primary reeling device 8. In the change station the plane connecting the central axis of the reel spool 5 and the central axis of the guide roll 2 is substantially vertical. In comparison to the situation of FIG. 3, the old machine reel R in the secondary reeling has moved forward according to the increase in the reel diameter, i.e. the reeling nip N between the reel R and the loop of the supporting member has moved to the travel direction of the upper portion of the loop. The paper web W now travels between the new empty reel spool 5 and the first guide roll 2 of the loop, and further along the upper web-carrying portion of the loop of the supporting member 1 and moves over to the periphery of the old reel R in the reeling nip N. FIG. 4 further illustrates how in this stage the old reel R has come into contact with a press roll 9 that is journaled rotatable and rotated with a drive of its own, the purpose of which is to ensure the density of the surface layers of the reel. The nip through which the web travels between the supporting member 1 and the shell of the new reel spool 5 is marked with the reference N1.

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Please amend paragraph 33 as follows:

[0033] In an embodiment according to FIGS. 2–6 [[to 7]], the entire loop [[1]] of the supporting member 1 must move according to the movement of the first guide roll 2, i.e. the second guide roll 3 must follow the movement of the first guide roll 2 in such a manner that the desired position of the loop is kept. This can be implemented in such a manner that the axes of rotation of the first guide roll 2 and the second guide roll 3 are interconnected with a rigid connecting body, which is schematically illustrated by the dotted line in FIG. 1. In practice, the movements can further be implemented in such a manner that each guide roll is mounted movably in the height direction in the carriage of its own, which in turn can be transferred in the machine direction in the frame of the reel-up. Thus, for example, by actively moving the carriage of the first guide roll 2 and by actively adjusting the height position of the guide roll 2 in the carriage, the guide roll can always be placed in the correct position in relation to the primary reeling device 8 and the reel spool in it 5. The second guide roll 3 follows the movement of the first guide roll in such a manner that the angle of the loop of the supporting member in relation to the horizontal plane changes in a desired manner or remains constant. In practice, the movement of the second guide roll 3 must be actively guided only in one direction, and the roll will automatically position itself in a direction perpendicular to said direction due to the rigid connecting body. For example, when transferring the carriages of the first guide roll 2 with active actuators and when adjusting the height position of the roll 2 in the carriages with the active actuators of these carriages, only height has to be actively adjusted in the carriage of the second roll 3, and the carriages follow the movement of the first roll 2 automatically in the machine direction via the rigid connecting body.

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Please amend paragraph 0037 as follows:

[0037] FIGS. ~~7 to 11~~ 7-11 illustrate a reel-up where the stages are principally the same as the ones described hereinabove. In addition to the first guide roll 2 and the second guide roll 3, there is, however, a third roll inside the loop of the supporting member 1, an additional roll 11, which is located in the travel direction of the web before the first guide roll 2. At the first guide roll 2 the travel direction of the loop does not change to the opposite, but the diagonally upward directed portion of the supporting member 1 turns to a diagonally downward directed portion, along which the reeling nip N transfers in the secondary reeling. On the diagonally upwards directed portion between the additional roll 11 and the first guide roll 2 the supporting member 1 carries the web towards the reeling nip N1. The additional roll can be used to adjust the tension of the supporting member. In addition, a roll 12 in contact with the supporting member outside the loop is presented, which can be used as a guiding roll, which positions the supporting member 1 in the lateral direction by means of the movement in its one end (arrows).